

WHAT IS CLAIMED IS:

1. A computer system having a central processing unit, a main memory, a BIOS ROM, a display device, and input devices, and using an operating system program containing product key information, the computer system comprising:

storing means for storing the operating system program;  
memory means for storing the product key information of the operating system, said product key information being input by a user, when the operating system program is installed in the storing means;

writing means for writing the product key information in the memory means; and  
input means for reading out the product key information from the memory means and inputting the read-out product key information in an information input window for product certification of the operating system program when a product key of an operating system program being reinstalled is matched with the read-out product key information.

2. The computer system of claim 1, wherein the storing means is a boot device.

3. The computer system of claim 1, wherein the memory means further stores information indicating the type of operating system program that was installed and indicating a compress conversion process of the product key information.

1 *for* 4. The computer system of claim 1, wherein the writing means is a program installed  
2 in the storing means.

1 5. The computer system of claim 1, wherein the input means is a program.

1 6. In a computer system having a central processing unit, a main memory, a BIOS ROM,  
2 and an auxiliary memory for storing information set by the BIOS ROM, and using an operating  
3 system program containing product key information, a method of writing the product key  
4 information into the auxiliary memory when the operating system program is first installed, the  
5 method comprising the steps of:

6 making a user manually input the product key information corresponding to a procedure of  
7 installing the operating system program;

8 executing a product key information writing program; and

9 writing the manually input product key information into the auxiliary memory.

1 7. The method of claim 6, further comprising a step of deleting the product key  
2 information writing program after the product key information is written into the auxiliary memory.

1 8. In a computer system having an operating system program containing product key  
2 information and comprising a central processing unit, a main memory, an auxiliary memory having  
3 the product key information, manually input by a user when the operating system program was first

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installed, stored therein, a method of automatically re-inputting the product key information when  
5 reinstalling the operating system program, the method comprising the steps of:

6 reading out the product key information from the auxiliary memory;

7 checking whether the read-out product key information is matched with product key  
8 information of an operating system program that will be reinstalled; and

9 if matched, automatically inputting the product key information in a product key information  
10 input window displayed on a screen corresponding to an installation procedure for installing the  
operating system program.

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1 9. The method as set forth in claim 8, wherein said step of checking comprises  
2 comparing the read-out product key information with product key information of an operating system  
3 program stored on a recovery CD-ROM in a CD-ROM drive.

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1 10. The method as set forth in claim 8, wherein said step of checking comprises  
2 comparing the read-out product key information with product key information of an operating system  
3 program stored on a hard disk of a recovery hard disk drive.

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1 11. A system recovery method for computer system having a central processing unit, at  
2 least one hard disk drive, a BIOS ROM, a CMOS RAM, a CD-ROM drive, a display device, and  
3 input devices, said computer system using an operating system program stored on a hard disk in said  
4 hard disk drive, said system recovery method comprising the steps of:

5 manually inputting, using one of said input devices, product key information corresponding  
6 to said operating system program, said product key information being input into a product key input  
7 window of a product key input screen displayed on said display device;  
8 executing a key input program stored on said hard disk for writing said product key  
9 information into a predetermined storage area of said CMOS RAM;  
10 executing a recovery program stored in a recovery storage device when said operating system  
11 program fails;  
12 reading out said product key information from said CMOS RAM when said recovery  
13 program is executed;  
14 comparing said product key information read out from said CMOS RAM with product key  
15 information stored in said recovery storage device; and  
16 automatically inputting the product key information read out from said CMOS RAM into said  
17 product key input window of the product key input screen displayed on said display device.

1 12. The method as set forth in claim 11, further comprising a step of storing said product  
2 key information manually input into said product key input window onto said hard disk.

1 13. The method as set forth in claim 12, said step of executing a key input program  
2 comprising the steps of:  
3 reading said product key information from said hard disk;

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4 encoding said product information using a compression conversion process to produce  
5 encoded product key information; and  
6 storing said encoded product key information in said predetermined storage area of said  
7 CMOS RAM.

1 14. The method as set forth in claim 13, further comprising a step of uninstalling said key  
2 input program from said hard disk after said storing step.

3 15. The method as set forth in claim 13, wherein said product key information is  
4 comprised of a plurality of ASCII characters and said compression conversion process comprises the  
5 steps of:

6 converting each ASCII character into a six bit code; and  
7 generating hexadecimal values for storage in said CMOS RAM by grouping the bits of the  
8 six bit codes corresponding to every four ASCII characters into three bytes.

1 16. The method as set forth in claim 15, wherein said step of converting each ASCII  
2 character into a six bit code comprises subtracting the hexadecimal value 30h from the hexadecimal  
3 of the ASCII character.

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2 17. The method as set forth in claim 15, wherein said step of converting each ASCII  
3 character into a six bit code comprises reading preset hexadecimal values for each ASCII character  
from a code table and changing the read hexadecimal values to binary values.

1 18. The method as set forth in claim 13, wherein said product key information is  
2 comprised of a plurality of ASCII characters and said compression conversion process comprises the  
3 steps of:

4 converting each ASCII character into a five bit code; and  
5 generating hexadecimal values for storage in said CMOS RAM by grouping the bits of the  
6 five bit codes corresponding to every three ASCII characters into two bytes.

1 19. The method as set forth in claim 18, wherein said step of converting each ASCII  
2 character into a five bit code comprises reading preset hexadecimal values for each ASCII character  
3 from a code table and changing the read hexadecimal values to binary values.

1 20. The method as set forth in claim 11, further comprising a step of checking a  
2 checksum of said product key information read out from said CMOS RAM before comparing said  
3 product key information read out from said CMOS RAM with product key information stored in said  
4 recovery storage device.

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21. The method as set forth in claim 11, wherein the step of executing a recovery program  
comprises reading a recovery program stored on a second hard disk of a second hard disk drive.

22. The method as set forth in claim 11, wherein the step of executing a recovery program  
comprises reading a recovery program stored on a recovery CD-ROM in a CD-ROM drive.

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